## § 229.317 Training and qualification program.

- (a) A railroad shall establish and implement training and qualification program for products subject to this subpart prior to the product being placed in use. These programs shall meet the requirements set forth in this section and in §229.319.
- (b) The program shall provide training for the individuals identified in this paragraph to ensure that they possess the necessary knowledge and skills to effectively complete their duties related to the product. These include:
- (1) Individuals whose duties include installing, maintaining, repairing, modifying, inspecting, and testing safety-critical elements of the product;
- (2) Individuals who operate trains or serve as a train or engine crew member subject to instruction and testing under part 217 of this chapter;
- (3) Roadway and maintenance-of-way workers whose duties require them to know and understand how the product affects their safety and how to avoid interfering with its proper functioning; and
- (4) Direct supervisors of the individuals identified in paragraphs (b)(1) through (3) of this section.
- (c) When developing the training and qualification program required in this section, a railroad shall conduct a formal task analysis. The task analysis shall:
- (1) Identify the specific goals of the program for each target population (craft, experience level, scope of work, etc.), task(s), and desired success rate;
- (2) Identify the installation, maintenance, repair, modification, inspection, testing, and operating tasks that will be performed on the railroad's products, including but not limited to the development of failure scenarios and the actions expected under such scenarios:
- (3) Develop written procedures for the performance of the tasks identified; and
- (4) Identify any additional knowledge, skills, and abilities above those required for basic job performance necessary to perform each task.
- (d) Based on the task analysis, a railroad shall develop a training curriculum that includes formally struc-

- tured training designed to impart the knowledge, skills, and abilities identified as necessary to perform each task.
- (e) All individuals identified in paragraph (b) of this section shall successfully complete a training curriculum and pass an examination that covers the product and appropriate rules and tasks for which they are responsible (however, such persons may perform such tasks under the direct onsite supervision of a qualified person prior to completing such training and passing the examination).
- (f) A railroad shall conduct periodic refresher training at intervals to be formally specified in the program, except with respect to basic skills for which proficiency is known to remain high as a result of frequent repetition of the task.
- (g) A railroad shall conduct regular and periodic evaluations of the effectiveness of the training program, verifying the adequacy of the training material and its validity with respect to the railroad's products and operations.
- (h) A railroad shall maintain records that designate individuals who are qualified under this section until new designations are recorded or for at least one year after such persons leave applicable service. These records shall be maintained in a designated location and be available for inspection and replication by FRA.

## $\S 229.319$ Operating Personnel Training.

- (a) The training required under §229.317 for any locomotive engineer or other person who participates in the operation of a train using an onboard electronic locomotive control system shall address all of the following elements and shall be specified in the training program.
- (1) Familiarization with the electronic control system equipment onboard the locomotive and the functioning of that equipment as part of the system and in relation to other onboard systems under that person's control:
- (2) Any actions required of the operating personnel to enable or enter data into the system and the role of that